## Predictors of severe covid-19 among healthcare workers in Sabah, Malaysia

## ABSTRACT

Healthcare workers (HCWs) is the high-risk group for COVID-19 infection due to increased workplace exposure. However, evidence of the disease burden and factors associated with severe COVID-19 infection among HCWs is limited. Therefore, this article aims to describe the prevalence of severe COVID-19 disease among HCWs in Sabah, Malaysia, and to determine the factors associated with severe COVID-19 infection. A retrospective crosssectional study was carried out by assessing the data of COVID-19-infected HCWs in Sabah, Malaysia, from 1st March 2021 until 30th September 2021. Logistic regression analysis was used in this study. Three thousand and forty HCWs were diagnosed with COVID-19 from 1st March 2021 until 30th September 2021. Of the 3040 HCWs, 2948 (97.0%) HCWs were mild, whereas 92 (3.0%) were severe. The multivariate logistic regression model showed that severe COVID-19 among HCWs in Sabah was associated with those do not receive any COVID-19 vaccination (aOR 6.061, 95% CI 3.408 - 10.780), underlying co-morbidity (aOR 3.335, 95% CI 2.183 - 5.096), and female (aOR 1.833, 95% CI 1.090 - 3.081). HCWs should strictly adhere to preventive measures, including vaccination, personal protective equipment, and early referral to a physician upon identifying severe COVID-19 infection. Early screening and aggressive co-morbidity treatment among HCWs are essential for public health practitioners to prevent severe COVID-19 disease. Regardless of co-morbidity status, HCWs should stay up to date with COVID-19 vaccination, including booster doses.